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Neil Alex Korneff
21428 Bella Pine Drive
Diamond Bar, CA 91765

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TRAN, LEN	
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BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Application Number: 10/672,759
Filing Date: September 27, 2003
Appellant(s): KORNEFF, NEIL ALEX

Neil Aelx Korneff
For Appellant

EXAMINER'S ANSWER

This is in response to the **appeal brief-Amendment B filed on October 6, 2006** appealing from the Office action mailed March 17, 2005.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

6,315,543	Lausenhammer et al	11-2001
4,603,329	Bangerter et al	7-1986

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-4, 15, 17-19, and 22 are rejected under 35 U.S.C. 102(b) as being anticipated by Bangerter et al (US 4,603,329).

As to claim 1 and 4, Bangerter et al disclose the method of performing additional ejection sequences in an injection mold comprising the steps of detecting the presence of the mold article in the mold, initiating the next cycle if the molded article, is not detected in the mold, and

activating an ejection sequence if the molded article is detected in the mold (col. 1, lines 12-15, lines 25-33, col. 11, lines 22-61).

As to claims 2 and 3, Bangerter et al disclose a vision system, radiation emitting and receiving sensors (col. 3, lines 20-32).

As to claim 15, the article is the molded part.

As to claims 17 and 18, the ejection sequences are pneumatic.

As to claims 19 and 22, the injection mold is plastic mold.

3. Claims 1-4 are rejected under 35 U.S.C. 102(b) as being anticipated by Lausenhammer et al (US 6,315,543).

As to claims 1 and 4, Lausenhammer et al disclose the method of performing additional ejection sequences in an injection mold comprising the steps of detecting the presence of the mold article in the mold, initiating the next cycle if the molded article, is not detected in the mold, and activating an ejection sequence if the molded article is detected in the mold (abstract, col. 2, lines 6-25).

As to claims 2 and 3, Lausenhammer et al disclose a vision system, radiation emitting and receiving sensors (col. 4, lines 55-67)

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 16, 20, 21, 23 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Buckley (US 6,4427,755) further in view of Lausenhammer et al (US '543) or Bangerter et al (US '329).

Buckley discloses the method of producing a silicon injected mold article (col. 6, lines 63-67), but fails to teach detecting the presence of molded article, initiating the next step, if the molded article is not detected, and activating an ejection sequence if the molded article is detected in the mold.

Lausenhammer et al discloses the method of performing additional ejection sequences in an injection mold comprising the steps of detecting the presence of the mold article in the mold, initiating the next cycle if the molded article, is not detected in the mold, and activating an ejection sequence if the molded article is detected in the mold (abstract, col. 2, lines 6-25) for the purpose of reducing the cycle time needed to mold and safely eject articles in a multi-cavity mold (col. 2, lines 1-2).

Therefore, it would have been obvious to one of ordinary skill in the art at the time applicant's invention was made to combine the detecting steps of Lausenhammer et al with Buckley in order to reduce cycle time and safely eject cast product from the mold cavity.

In addition, Bangerter et al disclose the method of performing additional ejection sequences in an injection mold comprising the steps of detecting the presence of the mold article in the mold, initiating the next cycle if the molded article is not detected in the mold, and activating an ejection sequence if the molded article is detected in the mold (col. 1, lines 12-15, lines 25-33, col. 11, lines 22-61). Bangerter et al disclose the above differences for the purpose of sensing the presence or absence of the parts in order to prevent damage to the dies.

Therefore, it would have been obvious to one of ordinary skill in the art at the time applicant's invention was made to combine Bangerter et al's detecting steps with Buckley in order to sense the presence or absence of the parts in order to prevent damage to the dies.

Furthermore, it would have been obvious to one of ordinary skill in the art at the time applicant's invention was made to use Bangerter or Lausehnammer et al's detection method in any type of metal injection mold, since all plastic or metal injection molds are similar in configuration and have the same function.

(10) Response to Argument

As to pages 4 and 5, appellant argues that both Bangerter et al and Lausenhammer et al do not disclose the method of activating an ejection sequence if said molded article, or portion thereof, is detected in said mold. However, appellant acknowledged that "*Bangerter discusses that it is imperative that all newly formed parts be completely removed from the molds or dies before the molds close, and the next cycle in the parts forming operation begins (col. 1, lines 12-15, lines 25-33, col. 1, lines 22-61). Bangerter discloses that if a part is stuck in the mold or die, an appropriate stop signal is sent to the parts forming apparatus (col. 2, lines 9-10) so as not to proceed with the next step of the parts forming cycle (col. 3, line 47 - col. 4, line 4, col. 12, lines 15- 19).*" In addition, appellant acknowledged that "*Lausenhammer discloses that if an article remains on a machine core pin after the article ejection cycle has occurred, the machine is prevented from starting a new injection cycle and damaging the injection mold (abstract, col. 1, lines 42-45, col. 2, lines 12-18).*"

Examiner respectfully disagrees with appellant's argument for the following reasons:

- The scope of the claims is to perform additional ejection to the molded article, if found present in the mold after the initial ejection was performed. However, the claimed invention is broadly claimed and does not define over the prior arts of record. Steps b and c of appellant's claimed invention requires to perform the necessary steps only if the molded product is not detected or detected, respectively. Therefore, if the

molded product is **not detected** in step b, then examiner **need not consider the optional step c**. Both Lausenhammer et al and Bangerter et al teach to proceed to casting new molded article if nothing is present in the die after detection. Thus, a 102 (b) rejection is proper.

- If both steps b and c are to be considered, it is still not defined over the prior arts of record. As acknowledged by appellant, Bangerter et al require the mold operation to stop if any parts are stuck in the mold or die. Furthermore, Bangerter et al is concerned "*that all newly formed parts be completely removed from the molds or dies before the molds close, and the next cycle in the parts forming operation begins (col. 1, lines 12-15, lines 25-33, col. 1, lines 22-61).*" Similarly, Lausenhammer et al is also concerned "*that if an article remains on a machine core pin after the article ejection cycle has occurred, the machine is prevented from starting a new injection cycle and damaging the injection mold (abstract, col. 1, lines 42-45, col. 2, lines 12-18).*" Therefore, while the ejection feature isn't explicitly disclosed by Lausenhammer et al or Bangerter et al, it is **immediately envisioned** by an ordinary skill in the art that if any parts still remain in the die or mold, it should be removed or ejected similarly to other cast pieces being ejected in the initial ejection. There is no specific sequence claimed by applicant to define over the prior arts of record.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

Len Tran

Primary Examiner, AU 1725

Conferees:

Patrick Ryan

Jennifer Kolb-Michener